

REPORTS ON THE FLORA OF THE BOSTON
DISTRICT—II.

THE local flora committee of the New England Botanical Club has continued to collect information as outlined in its first publication (RHODORA, ix. 81). Numerous botanists have contributed to the work by sending card-records regarding their specimens, and the collections of the Gray Herbarium, the Arnold Arboretum, and the New England Botanical Club have been personally examined. No doubtful records have in any case been included in the following list, and every species is represented by at least one herbarium specimen. Any additions will be welcomed, for the present list is regarded as by no means final.

There is need of much fuller information in regard to soil, moisture and other ecological factors, and future reports to the committee will be of greater value if they are more detailed than most of those we now have.

There is a large block of towns south of the Blue Hills, which are very little known botanically. We have no reports from the South Shore, and Bridgewater, Easton, Canton and Norfolk are the only inland towns which are well represented among our records for this section. The committee therefore urges upon the collectors of this district the importance of more detailed exploration south of the Blue Hills. The Committee will also try personally to collect in these towns as extensively as possible, but there is great need for coöperation in this part of the work.

The *Isoëtaceae* of this list have been contributed by Mr. A. A. Eaton of the Ames Botanical Laboratory. The committee wishes to thank Mr. Eaton for his zealous coöperation in this and other matters connected with the work.

MARSILEACEAE.

MARSILEA.

M. QUADRIFOLIA L. Introduced in muddy bottoms of lakes and streams; Charles and Concord Rivers; Glacialis and vicinity, Cambridge; Malden (1877, *Morong*); Boxford.

EQUISETACEAE.**EQUISETUM.**

- E. arvense** L. Moist sand and gravel, occasional in richer soil. Very common and variable.
- E. sylvaticum** L. Wet fields and woods, frequent.
- E. litorale** Kühlewein. Wet shore of Merrimac River in Amesbury and Newburyport (*A. A. Eaton & Raynal Dodge*).
- E. fluviatile** L. (*E. limosum* L.) Stagnant water. Frequent, especially in northern portion of the district.
- E. hyemale** L., var. **affine** (Engelm.) A. A. Eaton. Moist soil, infrequent. (All the material examined is of this variety, which is distinguished from the typical form by having rounded instead of biangulate ridges).
- E. scirpoides** Michx. Wet clay bank under hemlocks, Amesbury (*A. A. Eaton*).

LYCOPODIACEAE.**LYCOPodium.**

- L. lucidulum** Michx. Damp woods, frequent.
- L. inundatum** L. Wet sand, rare. Not reported south of Boston. Var. **Bigelovii** Tuckerm. Swamps and borders of ponds, occasional.¹
- L. annotinum** L. Rich woods, abundant in Essex and Manchester.
- L. clavatum** L. Dry woods, occasional.
- L. obscurum** L. Moist woods, occasional. Var. **dendroideum** (Michx.) D. C. Eaton. As common as the typical form.
- L. complanatum**, L., var **flabelliforme** Fernald. Originally common in dry woods and pastures, but eradicated in many places.
- L. tristachyum** Pursh. (*L. complanatum*, var. *Chamaecyparissus* Milde.) Open woods and pastures. Abundant in a few localities, but not generally distributed.

¹ Note. The plant reported from Plum Island, Newbury, as *L. alopecuroides* L. (Fern Bulletin v. 4) has been carefully examined, and the committee has decided it is not different from this variety.

SELAGINELLACEAE.**SELAGINELLA.**

S. rupestris (L.). Spring. Dry rocks, rather common.

S. apus (L.) Spring. Wet places; locally abundant in northern portion, occasional elsewhere; probably often overlooked.

ISOËTACEAE.**ISOËTES.**

I. Dodgei A. A. Eaton, var. **Robbinsii** A. A. Eaton. (*I. canadensis*, var. *Robbinsii* A. A. Eaton, RHODORA, v. 279. 1903.) In Mulberry Meadow Brook, Easton (A. A. Eaton).

I. Eatoni Dodge. In Tuxbury's Pond, Amesbury (A. A. Eaton & Raynal Dodge); in Parker River, Byfield (Raynal Dodge). Scarce.

I. echinospora Durieu, var. **Braunii** (Durieu) Engelm. Abundant throughout, mostly in mud, but sometimes on sandy shores and bottoms of ponds and large streams.

Var. **muricata** (Durieu) Engelm. Reported from twelve localities, covering the northern and southern limits of the district. Usually plentiful where found at all.

I. Engelmanni A. Br. In ponds and ditches, mostly over a clay subsoil; common in the northern part of the district, but not reported south of the Blue Hills.

I. foveolata A. A. Eaton, var. **plenospora** A. A. Eaton. In ponds, North Easton (A. A. Eaton). Plentiful.

? **I. Gravesii** A. A. Eaton. Arlington Brook (Wm. Boott). The specimens seen are fragmentary and unsatisfactory.

I. saccharata Engelm., var. **Amesii** A. A. Eaton. In ponds on gravelly bottom, North Easton (A. A. Eaton). Abundant.

I. Tuckermani A. Br. In ponds on sandy bottom, common.

? Var. **Harveyi** (A. A. Eaton) Clute. Fresh Pond, Cambridge (Wm. Boott). All material seen has been fragmentary and unsatisfactory.

(Note.— From the material examined, the genus would appear to

have a north-south distribution through the district, but this is doubtless more apparent than real. The genus has been little collected in the region except by Tuckerman, Boott, and others, who have lived in the neighborhood of Boston. When the western portions of the district have been thoroughly explored, they will probably yield a fair quota of species of this genus. *I. lacustris* L. and *I. riparia* Engelm. have been reported in the district, but I have personally examined material of all the collections referred to these species and find it to belong to other species.—A. A. EATON.)

TAXACEAE.

TAXUS.

T. canadensis Marsh. Cold woods; abundant at a few stations.

PINACEAE.

PINUS.

P. Strobis L. Common. The best specimens are those in the Appalachian Club Reservation at Carlisle, where the forest has never been cut off.

P. rigida Mill. Dry sterile soil, very abundant throughout.

P. SYLVESTRIS L. Escaped from cultivation; Danvers (*John Robinson*, Flora of Essex Co., 1880); "trees of all sizes, and some escaped into the roadside, sandy soil" Newburyport, (*Raynal Dodge*); "very rare in mixed woods," Belmont (*A. H. Moore*).

P. resinosa Ait. Dry soil; found sparingly as far south as Chestnut Hill, Brookline.

LARIX.

L. laricina (Du Roi) Koch. Cold swamps, not common.

L. DECIDUA Mill. Self-sown in Hemenway place, Canton (*E. F. Williams*).

PICEA.

- P. rubra** (Du Roi) Dietr. Abundant on rocky hillside near Cape Pond, Rockport (*J. H. Sears*); a single tree in Neponset River meadow, Milton, "in too wet land for an introduced tree" (*G. G. Kennedy*); a few trees in Randolph (*E. F. Williams*, *G. G. Kennedy*).
- P. mariana** (Mill.) B. S. P. Cold swamps; reported from eleven towns, mostly in northern portions of district.
- P. ABIES** (L.) Karst. (*P. excelsa* Link.) Spontaneous on west side of Blue Hill, evidently from large trees on the Hayward land (*G. G. Kennedy*).

ABIES.

- A. BALSAMEA** (L.) Mill. Reported from a few scattered stations but apparently not native in our range.

TSUGA.

- T. canadensis** (L.) Carr. Cold soil of rocky ridges and ravines, frequent.

CHAMAECYPARIS.

- C. thyoides** (L.) B. S. P. In very wet places throughout, usually forming "cedar swamps"; less common northward.

THUJA.

- T. OCCIDENTALIS** L. Reported from a few stations as introduced.

JUNIPERUS.

- J. communis** L., var. **depressa** Pursh. Dry sterile soil, very common. (True *J. communis* L. is arborescent, and has not been reported in our range).
- J. horizontalis** Moench (*J. Sabina*, var. *procumbens* Pursh). A single large specimen at the north base of Oldtown Hill, Newbury (*A. A. Eaton*). Probably the southern limit.
- J. virginiana** L. Dry soil throughout, common.

(Note.— Other extra-limital species of this family are likely to persist around old places, or occasionally to reproduce themselves. Those trees not known to have reproduced by seed are not included in this list.)

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FURTHER NOTES ON THE VASCULAR PLANTS OF THE NORTHEASTERN UNITED STATES.

B. L. ROBINSON.

IN the February issue of RHODORA the writer put on record some new combinations which had been found essential to consistent usage in the work and publications of the Gray Herbarium. Several further combinations of similar nature are given below, together with their synonymy. Those relating to the grasses are published by the kind permission of their respective authors. In several cases these combinations, which have already appeared in the subspecific category, are here put on record in order that they may have also a technical accuracy in the varietal rank, it being likely that they will be so placed by many writers who, according to long-established usage maintain the two categories, subspecies and variety, as being to a certain extent distinct.

SAGITTARIA LATIFOLIA Willd., forma **hastata** (Pursh), n. comb. *S. hastata* Pursh, Fl. Am. Sept. ii. 396 (1814).

PANICUM COLUMBIANUM Scribn., var. **thinium** Hitchc. & Chase, n. comb. *P. unciphyllum*, var. *thinium* Hitchc. & Chase, RHODORA, viii. 209 (1906).

PANICUM BOSCHII Poir., var. **molle** Hitchc. & Chase, n. comb. *P. latifolium*, var. *molle* Vasey, U. S. Dept. Agric. Div. Bot. Bull. viii. 34 (1889).

PANICUM HUACHUCAE Ashe., var. **silvicola** Hitchc. & Chase in litt. quam forma typica altius gracilius laetiore viride minus pubescens;